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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/189,009	02/25/2014	Qian Zhao	L542.312-0062	9659
164	7590	08/26/2020	EXAMINER	
KINNEY & LANGE, P.A. 312 SOUTH THIRD STREET MINNEAPOLIS, MN 55415-1002			CHOW, WING H	
			ART UNIT	PAPER NUMBER
			2621	
			NOTIFICATION DATE	DELIVERY MODE
			08/26/2020	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte QIAN ZHAO and YANYONG LI

Appeal 2019-003644
Application 14/189,009
Technology Center 2600

Before JOHN A. JEFFERY, ST. JOHN COURTENAY III, and
JASON J. CHUNG, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Under 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–8, 14, 15, 18, and 19. Claims 9–13, 16, and 17 are canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real parties in interest as Beijing Lenovo Software Ltd. and Lenovo (Beijing) Limited. Appeal Br. 2.

STATEMENT OF THE CASE

Appellant's invention enables operating parameters, such as brightness, to be adjusted automatically and consistently among multiple connected electronic devices, such as tablet computers or mobile phones, that present media files jointly. *See generally* Abstract; Spec. 4–8. Claim 1 is illustrative:

1. An information processing method for adjusting a media file, the method comprising:

presenting the media file on a first electronic device;

in response to detecting that a second electronic device is attached to the first electronic device for jointly presenting the media file, automatically adjusting a first component of the first electronic device and/or instructing adjustment of a second component of the second electronic device such that a volume, brightness and/or display size of at least a portion of the media file presented on the first electronic device correspond to a volume, brightness and/or display size of at least a portion of the media file presented on the second electronic device;

detecting, at the first electronic device, whether a first operation for adjusting the first component to adjust the volume, brightness and/or display size of the at least a portion of the media file presented on the first electronic device is received;

generating an adjustment instruction based on the first operation; and

executing the adjustment instruction and transmitting the adjustment instruction to the second electronic device, so as to enable the second electronic device to adjust the second component to adjust the volume, brightness and/or display size of the at least a portion of the media file presented on the second electronic device to correspond to the volume, brightness and/or display size of the at least a portion of the media file presented on the first electronic device by executing the adjustment instruction,

wherein the second component and the first component are of the same type.

THE REJECTION

The Examiner rejected claims 1–8, 14, 15, 18, and 19 under 35 U.S.C. § 103 as unpatentable over Yoneoka (US 2011/0095965 A1; published Apr. 28, 2011) and Sadri (US 2009/0310028 A1; published Dec. 17, 2009). Final Act. 4–13.²

FINDINGS, CONCLUSIONS, AND CONTENTIONS

The Examiner finds that Yoneoka discloses every recited element of independent claim 1 including, responsive to detecting that a second electronic device (any of slave LCD devices 12–14) is attached to a first electronic device (master liquid crystal display (LCD) device 11), automatically adjusting a first component (backlight 23) of the first electronic device and/or instructing adjustment of a second component (backlight 23) of a second electronic device such that “configuration parameters,” including brightness, are “synchronized” on the first and second electronic devices. *See* Final Act. 4–7. Although the Examiner acknowledges that Yoneoka does not “synchronize” the devices’ volume, the Examiner cites Sadri for teaching this feature in concluding that the claim would have been obvious. Final Act. 4–7.

Appellant argues that the cited prior art does not teach or suggest automatically adjusting the electronic devices’ parameters to correspond to each other when the devices are initially attached together. Appeal Br. 5–11.

² Throughout this opinion, we refer to (1) the Final Rejection mailed May 2, 2018 (“Final Act.”); (2) the Appeal Brief filed November 5, 2018 (supplemented December 17, 2018) (“Appeal Br.”); and (3) the Examiner’s Answer mailed January 24, 2019 (“Ans.”).

According to Appellant, not only does the user manually adjust the master and slave devices' initial settings or brightness in Yoneoka, this initial adjustment is not made responsive to detecting the devices' attachment as claimed. Appeal Br. 6–7.

ISSUE

Under § 103, has the Examiner erred in rejecting claim 1 by finding that Yoneoka and Sadri collectively would have taught or suggested, responsive to detecting that a second electronic device is attached to a first electronic device, automatically adjusting a first component of the first electronic device and/or instructing adjustment of a second component of the second electronic device such that a volume, brightness, and/or display size of at least part of a media file presented on the first electronic device correspond to a volume, brightness, and/or display size of at least part of the file presented on the second electronic device?

ANALYSIS

We begin by noting that claim 1 recites various elements *alternatively* that broadens the claim's scope considerably.³ First, the claim recites, in pertinent part, responsive to detecting that a second electronic device is attached to a first electronic device, (1) automatically adjusting a first

³ When a claim covers several alternatives, the claim may be unpatentable if any of the alternatives within the scope of the claim are taught by the prior art. *See Brown v. 3M*, 265 F.3d 1349, 1351 (Fed. Cir. 2001); *see also Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1311 (Fed. Cir. 2002) (citing *Brown v. 3M*, 265 F.3d at 1352).

component of the first electronic device; *and/or* (2) instructing adjustment of a second component of the second electronic device. Our emphasis on the term “and/or” underscores that only one of the recited alternatives, namely (1) or (2) above, need be taught or suggested by the prior art to satisfy the claim.

Given its context in claim 1, the term “automatically” presumably modifies only the adjustment alternative (1), and not the adjustment instruction alternative (2). To the extent that Appellant contends that the term “automatically” modifies both alternatives, such an argument is not commensurate with the scope of the claim that lacks such a requirement. Nevertheless, to the extent there is an ambiguity regarding the extent of what the term “automatically” modifies, it would render the claim subject to multiple plausible interpretations and, therefore, indefinite. *See Ex parte Miyazaki*, 89 USPQ2d 1207, 1211 (BPAI 2008) (precedential) (“[I]f a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 U.S.C. § 112, second paragraph, as indefinite.”); *see also* Manual of Patent Examining Procedure (MPEP) § 2173.05(b)(II) (9th ed. Rev. 10.2019, June 2020) (citing *Miyazaki*). Nevertheless, given our interpretation above, we need not resolve that question here, but rather leave this indefiniteness issue for the Examiner to consider should prosecution reopen after this opinion.

The claim also recites other key elements alternatively, namely volume, brightness, *and/or* display size. Here again, the term “and/or” merely requires only one of the three recited elements be disclosed in the prior art to satisfy the limitation. Given this breadth, the Examiner’s

reliance on Sadri to show that the recited *volume* alternative was known in the art (Final Act. 7) is, therefore, technically cumulative to Yoneoka that discloses at least one of the other alternatives, namely brightness. *See* Final Act. 7 (noting that Yoneoka synchronizes brightness across multi-screen devices). Nevertheless, we treat any error associated with this inconsistency as harmless on this record.

Given this interpretation, we see no error in the Examiner's reliance on Yoneoka for at least suggesting the recited device attachment detection, and performing either recited function responsive to that detection, namely (1) automatically adjusting a first component of the first electronic device; *or* (2) instructing adjustment of a second component of the second electronic device.

Although Yoneoka does not state explicitly that the attachment of master and slave devices in Figure 1 is detected, this detection is nonetheless implicit to Yoneoka's disclosed functionality, particularly since the devices can communicate with each other via dedicated communication paths resulting from the devices' attachment to each other via bi-directional communication cables. *See* Yoneoka ¶ 23 (noting that the LCD devices are connected to one another via a bi-directional communications cable), ¶¶ 42, 54 (noting that the master and slave devices are mutually communicable with each other). Without this detection, there would be no communication between devices, for it is their cable-based *attachment* that creates the communication paths between devices. *See* Yoneoka Fig. 1.

Notably, claim 1 does not specify how, or by what means, the attachment is detected. Therefore, nothing in the claim precludes the devices' components that enable them to communicate with other devices

via the attached cables—a capability made possible by detecting that attachment. In this sense, these components effectively function as “detectors” of the attachment that creates the communication path, thus rendering the devices mutually communicable with each other.

Appellant’s arguments to the contrary (Appeal Br. 6–7) are unavailing. Notably, Appellant does not squarely address—let alone persuasively rebut—the Examiner’s reliance on the functionality associated with the master and slave devices’ mutual communicability in Yoneoka for at least suggesting the recited attachment detection. *See* Ans. 6. Although the master and slave devices are shown as attached to each other in Yoneoka’s Figure 1 as Appellant indicates (Appeal Br. 6–7), Yoneoka nonetheless at least suggests detecting that attachment by the devices’ respective communication components to enable them to communicate with each other via that cable-based attachment noted above. Appellant’s arguments to the contrary are unavailing and not commensurate with the scope of the claim.

Yoneoka also at least suggests the performing either recited function responsive to that attachment detection, namely (1) automatically adjusting a first component of the first electronic device, namely the master device’s backlight, *or* (2) instructing adjustment of a second component of the second electronic device, namely the slave device’s backlight, consistent with the Examiner’s mapping. *See* Final Act. 5–6. Given Yoneoka’s iterative feedback loops (1) from steps S6 to S1 in Figure 2 for the slave devices, and (2) from step S17 to S12 in Figure 3 for the master device, Yoneoka at least suggests not only automatically adjusting the master device’s backlight repeatedly, but also repeatedly instructing adjustment of the slave devices’

backlights. *See* Yoneoka ¶¶ 27–40, 54. We find this iterative, sequential brightness adjustment process teaches or suggests the multiple adjustment and instruction steps in claim 1.

We reach this finding despite the user adjusting each devices’ brightness initially in Yoneoka’s paragraph 35. Leaving aside the fact that nothing in the claim precludes the subsequent sequential automatic adjustments and associated instructions in Yoneoka’s Figures 3 and 4 noted above for teaching the two recited adjustment processes in claim 1, we nonetheless see no reason why Yoneoka’s initial brightness adjustments could not also be performed at least partly automatically by, for example, using a personal computer (PC) via external control terminal 31 as noted in Yoneoka’s paragraph 23. *Accord* Ans. 5 (noting that automation is one of the most significant reasons for employing a PC).

Even assuming, without deciding, that some manual intervention would be involved with using a PC to adjust brightness initially, that alone is not dispositive, for the term “automatically” does not preclude at least some manual steps, so long as other steps are automatic. *See CollegeNet, Inc. v. ApplyYourself, Inc.*, 418 F.3d 1225, 1235 (Fed. Cir. 2005). It is also well settled that merely replacing manual activity with automatic means to accomplish the same result is an obvious improvement. *See In re Venner*, 262 F.2d 91, 95 (CCPA 1958). Nor has Appellant shown that adjusting a master LCD device’s backlight automatically in lieu of at least some manual interaction would have been uniquely challenging or otherwise beyond the level of ordinarily skilled artisans. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (“Applying modern electronics to older mechanical devices has been commonplace in recent

years.”). To the extent Appellant contends otherwise, there is no persuasive evidence on this record to substantiate such a contention.

Therefore, we are not persuaded that the Examiner erred in rejecting claim 1, and claims 2–8, 14, 15, 18, and 19 not argued separately with particularity.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s) /Basis	Affirmed	Reversed
1–8, 14, 15, 18, 19	103	Yoneoka, Sadri	1–8, 14, 15, 18, 19	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

AFFIRMED